Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office. U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION **TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	1875.4280001	
First Inventor	Scott Powell	
Title	See 1 in Addendum	- - DT
Express Mail Label No.		တွ

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450			
1. X Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original and a duplicate for fee processing) 2. Applicant claims small entity status. See 37 CFR 1.27. 3. X Specification [Total Pages 19] (preferred arrangement set forth below) - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed)	7. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix) 8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) a. Computer Readable Form (CRF) b. Specification Sequence Listing on: i. CD-ROM or CD-R (2 copies); or ii. Paper c. Statements verifying identity of above copies			
- Detailed Description	ACCOMPANYING APPLICATION PARTS			
- Claim(s) - Abstract of the Disclosure 4. X Drawing(s) (35 U.S.C. 113) [Total Sheets 7] 5. Oath or Declaration [Total Sheets 1] a. X Newly executed (original or copy) b. Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed) i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 6. X Application Data Sheet. See 37 CFR 1.76	9. X Assignment Papers (cover sheet & document(s)) 10. 37 CFR 3.73(b) Statement Power of (when there is an assignee) Attorney 11. English Translation Document (if applicable) 12. Information Disclosure Copies of IDS Statement (IDS)/PTO-1449 Citations 13. Preliminary Amendment 14. X Return Receipt Postcard (MPEP 503) (Should be specifically itemized) 15. Certified Copy of Priority Document(s) (if foreign priority is claimed) 16. Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. 17. X Other: Authorization under 37CFR 1.136(a)(3) The name of the assignee is: Broadcom Corporation			
18. If a CONTINUING APPLICATION, check appropriate box, and supp				
specification following the title, or in an Application Data Sheet under 37	7 CFR 1.76:			
Continuation Divisional Continuat	ion-in-part (CIP) of prior application No.:			
Prior application information: Examiner Art Unit: For CONTINUATION OF DIVISIONAL APPS only; The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.				
19. CORRESPOND	DENCE ADDRESS			
X Customer Number: 26111	OR Correspondence address below			
Name Sterne, Kessler, Goldstein & Fox P.L.L.C.				
Address				
City	State Zip Code			
Country Te	lephone Fax			
Name (Print/Type) Jason D. Eisenberg 2	Registration No. (Attorney/Agent) 43,447			
Signature Cana	Date March 11, 2004			

This collection of information is required by 37 CFR 1/53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mall Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Utility Patent Application Transmittal Addendum (1875.4280001)

1. Partial Duplex Frequency Domain Modulator System And Method

_	_	4
C	٠,	3
ř	╮	3
C	_	=
_	_	ī
•		•

	95, no perso	ons are required to I	U.S. Patent and Ti	PTO/SB/17 (10-03) Approved for use through 07/31/2006. OMB 0651-0032 rademark Office; U.S. DEPARTMENT OF COMMERCE promation unless it displays a valid OMB control number.	
ਰ FEE TRANSMITTAL			Complete if Known		
O FEE IRANG		IIAL	Application Number	To Be Assigned	
for FY 2004		Filing Date	Herewith on March 11, 2004		
Effective 10/01/2003. Patent fees are subject to annual revision.			First Named Inventor	Scott Powell	
		Examiner Name	To Be Assigned		
Applicant claims small entity status. See 37 CFR 1.27		Art Unit	To Be Assigned		
TOTAL AMOUNT OF PAYMENT	(\$)	828.00	Attorney Docket No.	1875.4280001	

Attorney Docket No.

METHOD OF PAYMENT (check all that apply)		FEE CALCULATION (continued)				
Check X Credit card Money X Other** None		3. ADDITIONAL FEES				
*Charge any deficiencies or credit any overpayments in		Large Entity Small Entity				
Deposit Account: the fees to Deposit Acci, No. 19-0036. Deposit	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	
Account Number 19-0036	1051	130	2051		Surcharge - late filing fee or oath	Fee Paid
Deposit	1052	50	2052		Surcharge - late provisional filing fee or	
Account Name Sterne Kessler, Goldstein & Fox P.L.L.C.	1053	130	1053	130	cover sheet Non-English specification	
The Director is authorized to: (check all that apply)	1812		1812		For filing a request for ex parte reexamination	
Charge fee(s) indicated below Credit any overpayments	1804	920*	1804		Requesting publication of SIR prior to	
Charge any additional fee(s) or any underpayment of fee(s)					Examiner action	
Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.	1805	1,840°	1805	1,840°	Requesting publication of SIR after Examiner action	
FEE CALCULATION	1251	110	2251	55	Extension for reply within first month	
1. BASIC FILING FEE	1252	420	2252	210	Extension for reply within second month	
Large Entity Small Entity	1253	950	2253	475	Extension for reply within third month	
Fee Fee Fee Fee Fee Paid Code (\$) Code (\$)	1254	1,480	2254	740	Extension for reply within fourth month	
1001 770 2001 385 Utility filing fee	1255	2,010	2255	1,005	Extension for reply within fifth month	
1002 340 2002 170 Design filling fee 770 00	1401	330	2401	165	Notice of Appeal	
1003 530 2003 265 Plant filing fee	1402	330	2402	165	Filing a brief in support of an appeal	
1004 770 2004 385 Reissue filing fee	1403	290	2403	145	Request for oral hearing	
1005 160 2005 80 Provisional filing fee	1451	1,510	1451	1,510	Petition to institute a public use proceeding	
SUBTOTAL (1) (\$) 770.00	1452	110	2452	55	Petition to revive - unavoidable	
	1453	1,330	2453	665	Petition to revive - unintentional	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE	1501		2501	665	Utility issue fee (or reissue)	
Extra Claims below Fee Paid Total Claims 21 20 = 1 X 18 = 18.00	1502	480	2502	240	Design issue fee	
Independent -20	1503	640	2503	320	Plant issue fee	
Claims 2 -3 **= X = = Multiple Dependent	1460	130	1460	130	Petitions to the Commissioner	
	1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
Large Entity Small Entity Fee Fee Fee Fee <u>Fee Description</u>	1806	180	1806	180	Submission of Information Disclosure Stmt	
Code (\$) Code (\$)	8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40.00
1202 18 2202 9 Claims in excess of 20 1201 86 2201 43 Independent claims in excess of 3	1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1203 290 2203 145 Multiple dependent claim, if not paid	1810	770	2810	385	For each additional invention to be	
1204 86 2204 43 ** Reissue independent claims over original patent	1801	770	2801	385	examined (37 CFR 1.129(b)) Request for Continued Examination (RCE)	
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802	900	1802	900	, , ,	
	Other	fee (sp	ecify)_			
SUBTOTAL (2) (\$) 18.00 **or number previously paid, if greater; For Reissues, see above			Basic f	Filing F	ee Paid SUBTOTAL (3) (\$)	40.00
SUBMITTED BY (Complete (if applicable))						

SUBMITTED BY Registration No. Telephone Name (Print/Type) (202) 371-2600 43,447 (Attorney/Agent) March 11, 2004 Signature

WARNING: Information on this form may become public. Credit card information should not be included on this form Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Robert Greene Sterne Edward J. Kessler Jorge A. Goldstein David K.S. Cornwell Robert W. Esmond Tracy-Gene G. Durkin Michele A. Cimbala Michael B. Ray Robert E. Sokohl Eric K. Steffe Michael Q. Lee Steven R. Ludwig John M. Covert Linda E. Alcorn Robert C. Millonig Lawrence B. Bugaisky Donald J. Featherstone Michael V. Messinger

Judith U. Kim Timothy J. Shea, Jr. Patrick E. Garrett Heidi L. Kraus Edward W. Yee Albert L. Ferro* Donald R. Banowit Peter A. Jackman Teresa U. Medler Jefftey S. Weaver Kendrick P. Patterson Vincent L. Capuna Eldora Ellison Floyd Thomas C. Fiala Brian J. Del Buono Virgil Lee Beaston Kimberly N. Reddick Theodore A. Wood Elizabeth J. Haanes Joseph S. Ostroff Frank R. Cottingham Christine M. Untiler Rae Lynn Prengaman Jane Sheshenovich' Lawrence J. Carroll' George S. Bardmesser Daniel A. Klein' Jason D. Eisenberg Michael D. Specht Andrea J. Kamage Tracy L. Muller' LuAnne M. DeSantis John J. Figueroa Ann E. Summerfield Tiera S. Coston' Aric W. Ledford' Michael D. Specht Jessica L. Parezo Timothy A. Doyle* Cynthia M. Bouchez Nicole D. Dretar* Ted J. Ebersole Registered Patent Age

Registered Patent Agents* Karen R. Markowicz Nancy J. Lieth Helene C. Carlson Gaby L. Longsworth Matthew J. Dowd Aaron L. Schwartz Mary B. Tung Katrina Y. Pei Quach Bryan L. Skelton Robert A. Schwartzman

Mail Stop Patent Application

Teresa A. Colella Jeffrey S. Lundgren Victoria S. Rutherford Eric D. Hayes Michelle K. Holoubek Robert H. DeSelms Simon J. Elliott Judie A. Heider Mita Mukerjee Scott M. Woodhouse Of Counsel Kenneth C. Bass III Evan R. Smith Marvin C. Guthrie *Admitted only in Maryland *Admitted only in Virginia *Practice Limited to

March 11, 2004

WRITER'S DIRECT NUMBER: (202) 772-8645 INTERNET ADDRESS: JASONE@SKGF.COM

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Re:

U.S. Non-Provisional Utility Patent Application under 37 C.F.R. § 1.53(b)

Appl. No. To Be Assigned; Filed: Herewith on March 11, 2004

For: Partial Duplex Frequency Domain Modulator System and Method

Inventor:
Our Ref:

Scott Powell 1875.4280001

Sir:

The following documents are forwarded herewith for appropriate action by the U.S. Patent and Trademark Office:

- 1. PTO Fee Transmittal (Form PTO/SB/17);
- 2. PTO Utility Patent Application Transmittal (Form PTO/SB/05);
- 3. U.S. Utility Patent Application entitled:

Partial Duplex Frequency Domain Modulator System and Method

and naming as inventor:

Scott Powell

the application consisting of:

- a. An Application Data Sheet (37 C.F.R. § 1.76);
- b. An original executed Declaration;
- c. A specification containing:
 - i. 13 pages of description prior to the claims;

Sterne, Kessler, Goldstein & Fox PLLC.: 1100 New York Avenue, NW: Washington, DC 20005: 202.371.2600 f 202.371.2540: www.skgf.com

Commissioner for Patents March 11, 2004 Page 2

- ii. 5 pages of claims (21 claims, 2 independent);
- iii. a one (1) page abstract;
- d. 7 sheets of drawings: (Figure(s) 1-7); and
- 4. Authorization to Treat a Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3);
- 5. Recordation Form Cover Sheet;
- 6. An original executed Assignment to Broadcom Corporation, recordation of which is hereby respectfully requested;
- 7. Two (2) return postcards; and
- 8. Form PTO-2038 Credit Card Payment Form.

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jason D. Eisenberg
Attorney for Applicant

Registration No. 43,447

JDE/crf Enclosures

#238628.1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Scott Powell

Appl. No.: To Be Assigned

Filed: Herewith on March 11, 2004

For: Partial Duplex Frequency Domain

Modulator System and Method

Confirmation No.: To Be Assigned

Art Unit: To Be Assigned

Examiner: To Be Assigned

Atty. Docket: 1875.4280001

Authorization to Treat a Reply as Incorporating an Extension of Time Under 37 C.F.R. § 1.136(a)(3)

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jason D. Eisenberg

Attorney for Applicant Registration No. 43,447

Date: March 11, 2004

1100 New York Avenue, N.W. Washington, D.C. 20005-3934 (202) 371-2600

#238702.1